

REMARKS

In complete response to the Office Action of March 28, 2005, on the above-identified application, reconsideration is respectfully requested. Claims 1-36 are pending. Claims 1-36 stand rejected. Applicants have currently amended claims 1-6, 8-9, 12-16, and 19-36. Applicants have canceled claims 10-11 and 17-18.

Claim Rejections Under 35 U.S.C. § 112:

Claims 1-26, 35, and 36 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite to particularly point out and distinctly claim the subject matter, which applicants regard as the invention.

Applicants have amended claims 1-6, 8-9, 12-16, and 19-36 to further define the invention. Applicants have canceled claims 10-11 and 17-18. Claim 7 is dependent on the amended claim 1, and thus has been further defined. Applicants believe claims 1-9, 12-16, and 19-36, as amended, particularly point out and distinctly claim the subject matter of the invention.

Claim Rejections Under 35 U.S.C. § 102:

Claims 1-36 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by the disclosure of GB 1,435,151, EP 0,732,143 or U.S. Patent No. 4,113,628 (Alegranti).

Applicants respectfully disagree. Below is a claim by claim analysis of the current invention explaining the novelty of the current invention over the art cited by the Examiner.

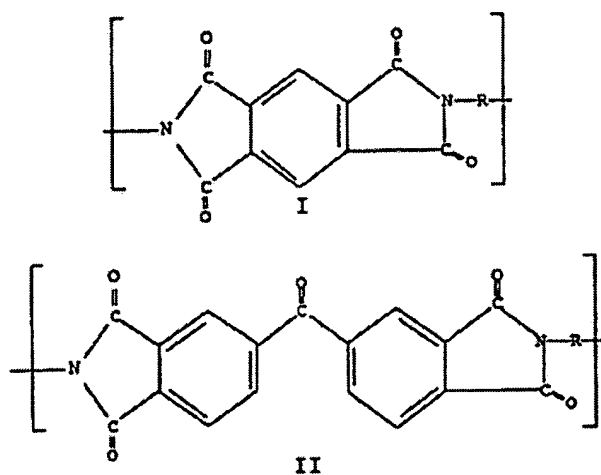
Claims 1-10

Applicants have amended claims 1 and 2 to further define the invention. These claims, as currently amended, define a **structure not disclosed** in GB 1,435,151, EP 0,732,143 or Alegranti. Thus, claims 1 and 2, as currently amended, are patentable over these references.

Claims 3-10 are dependent on claims 1 or 2. Because claims 1 and 2, as amended, are patentable over the cited references, dependent claims 3-10 are also patentable over the cited references.

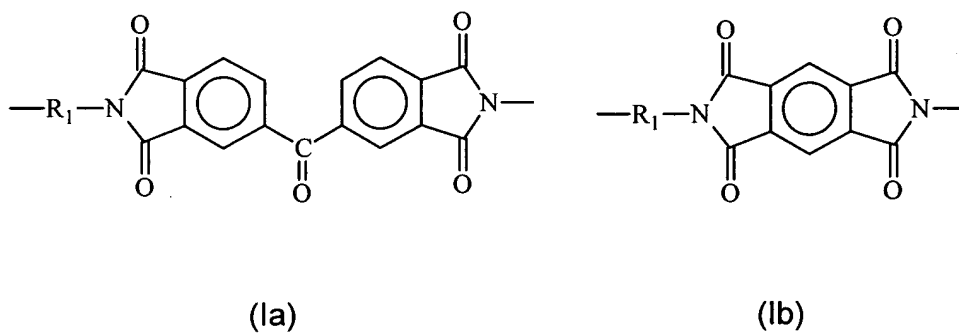
Claim 12-14

EP 0,732,143 discloses a polyimide with repeating units of formula (I) and formula (II):



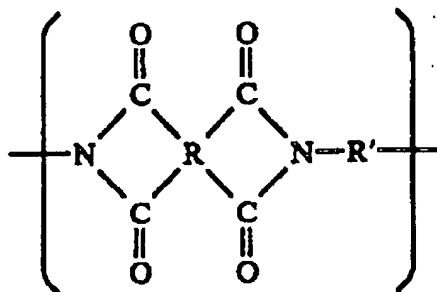
(page 3, lines 35-55).

By contrast, the current invention claims a polyimide with repeating units of formula (Ia) and (Ib):



The **structures of the current invention are not disclosed** in EP 0,732,143, thus the current invention is clearly patentable over EP 0,732,143.

Alegranti discloses a membrane made from a polyimide having the repeating formula:



(col. 3, lines 38-45).

Alegranti defines R_2 to include the structures of either (Ia) or (Ib) defined above (col. 3, line 47 to col. 5, line 24). However, **Alegranti fails to disclose a combination of (Ia) and (Ib) in the same membrane**. In fact, the Alegranti patents disclose 96 examples of specific embodiments of the invention, and in none of these embodiments, does Alegranti disclose a combination of (Ia) and (Ib) in the same polyimide membrane.

In contrast, the **current invention claims a combination of (Ia) and (Ib)**, which are defined above, in the same polyimide membrane. Because Alegranti fails to disclose the combination of (Ia) and (Ib), the current invention, as reflected in claims 12-14 is patentable of Alegranti.

Alegranti is a continuation of U.S. Application No. 273,805. Furthermore, GB 1,435,151 is the foreign filing claiming priority to U.S. Application No. 273,805. **GB 1,435,151 discloses the same material as Alegranti**. Thus, for the reasons cited above, the current invention is patentable over GB 1,435,151.

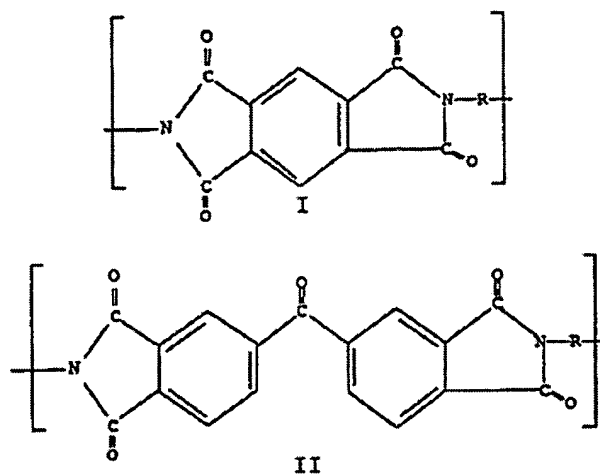
Claim 15

The current invention claims a method of separation wherein at least one hydrocarbon condenses on the feed side of the membrane. The art cited by the

Examiner **fails to disclose condensing of the feed stream**. Thus, the current invention, as reflected in claim 15, is patentable over the cited art.

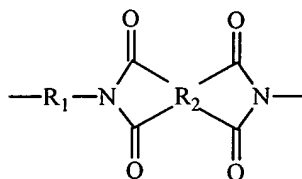
Claims 16-26

EP 0,732,143 discloses a polyimide with repeating units of formula (I) and formula (II):



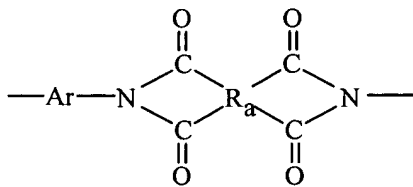
(page 3, lines 35-55).

In contrast, the current invention claims a polyimide membrane that is a blend of two copolyimides. The blend contains a Type I copolyimide of formula (I):

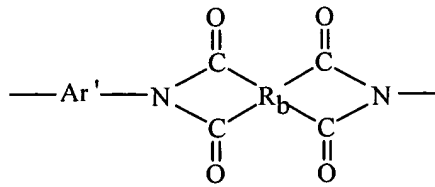


(I),

and a Type 2 copolyimide of formulas (IIa) and (IIb):



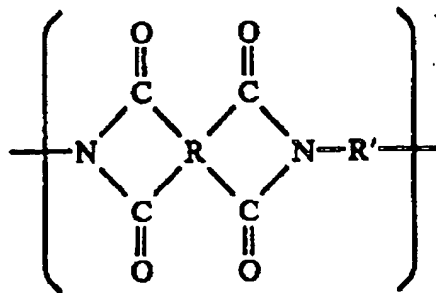
(IIa)



(IIb).

Regardless of the moieties defined for R_1 , R_2 , R_a , R_b , Ar and Ar' , the claimed **structure of the current invention is clearly not disclosed in EP 0,732,143**, and is thus patentable over the structures disclosed in EP 0,732,143.

Alegranti and GB 1,435,151 (referred to collectively as "the Alegranti patents") disclose a membrane made from a single polyimide having the repeating formula:



(Alegranti col. 3, lines 38-45).

The **Alegranti patents** go on to define the structure above, but **fail to define the existence of more than one polymer type in the same polyimide membrane**.

In contrast, the **current invention** claims a membrane comprising a **blend of two different types of copolyimides**, which are defined in the claims as Type 1 and Type 2. Clearly, the Alegranti patents fail to disclose a combination of a Type 1 and a Type 2 copolyimide in the same membrane. Because the Alegranti patents fail to disclose a combination of more than one type of copolyimide, the current invention, as reflected in claims 16-26 is patentable over them.

Claims 27-36

The current invention, as reflected in claims 27-36, is patentable over EP 0,732,143 for the same reasons as cited under claims 12-14 above.

The **Alegranti patents disclose an asymmetric membrane** of a polyimide (Alegranti col. 3, lines 33-36). The entire contents of the specifications and inventions of the Alegranti patents are dedicated to producing asymmetric membranes. The specifications fail to disclose the use of the disclosed polyimide polymer in producing composite membranes. Furthermore, the Alegranti patents only discuss the use of the disclosed polyimide polymer as a separating membrane, and not as a core layer of a composite membrane.

The **current invention**, as reflected in claims 27-36, claims a method using a **composite membrane**, wherein the **core layer** of the composite membrane is made of a **copolyimide**, as described in the claims. Thus, the current invention, as reflected in claims 27-36, is patentable over the Alegranti patents because the **Alegranti patents fail to disclose a composite membrane, wherein the core layer is made of the subject polyimide copolymers.**

Application No. 10/723,387
Amendment dated May 9, 2005
Reply to Office Action of March 28, 2005

CONCLUSION

Accordingly, it is believed that the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited. Should the examiner believe a telephone call would expedite the prosecution of the application, he is invited to call Linda K. Russell at the number listed below.

Respectfully submitted,

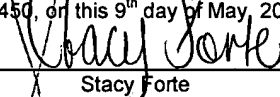


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CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

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Stacy Forte